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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FISH & NEAVE IP GROUP
ROPES & GRAY LLP
ONE INTERNATIONAL PLACE
BOSTON, MA 02110-2624

EXAMINER	
SOBUTKA, PHILIP	
ART UNIT	**PAPER NUMBER**
2618	

DATE MAILED: 06/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/663,922	ELLIOTT, BRIG BARNUM	
	Examiner	Art Unit	
	Philip J. Sobutka	2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-45 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-45 is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 16 September 2003 is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5/05.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Garcia-Luna-Aceves (US 2002/0154602) in view of Dybdal et al (US 2003/0087606).

Consider claim 1. Garcia-Luna-Aceves teaches a wireless device, comprising:

a transceiver configured to transmit data to a network via a wireless connection *(Garcia-Luna-Aceves see especially figure 1, paragraphs 5, 32, 38)*;

an output queue configured to store data that awaits transmission by the transceiver *(Garcia-Luna-Aceves see paragraphs 42-44)*;

indicator logic configured to estimate a quality of the wireless connection based on an amount of time that the data remains in the output queue *(Garcia-Luna-Aceves see paragraphs 49-53)*; and

Garcia-Luna-Aceves lacks a teaching of an indicator configured to provide information regarding the quality of the wireless connection to a user of the wireless device.

Dybdal teaches providing a wireless device with various types of indication to inform the user of the quality of the connection *(Dybdal see especially paragraph 36)*. It would have been obvious to one of ordinary skill in the art to modify the quality determination arrangement of Garcia-Luna-Aceves to add an indicator in order to keep the user informed of potential problems in the communication link.

As to claim 2, Garcia-Luna-Aceves teaches the wireless device of claim 1, wherein the indicator logic includes measurement logic configured to:

read a first time at which data is stored in the output queue *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*,

read a second time at which the data is de-queued by the transceiver *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*, and

determine an amount of time that the data remains in the output queue based on a difference between the first and second times *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 3, Garcia-Luna-Aceves teaches the wireless device of claim 1, wherein the indicator logic includes: a quality estimator configured to: generate a

statistical measure of an amount of time that data remains in the output queue, and use the statistical measure to estimate the quality of the wireless connection *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 4, Garcia-Luna-Aceves teaches the wireless device of claim 3, wherein the statistical measure is generated for data stored in the output queue over a predetermined period of time *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 5, Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 1, wherein the indicator includes a visual mechanism that provides a visual indication of the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 6, Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 1, wherein the indicator includes an audible mechanism that provides an audible signal relating to the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 7, Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 1, wherein the indicator includes a physical mechanism that provides a physical indication relating to the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 8, Garcia-Luna-Aceves teaches the wireless device of claim 1, wherein the network is the Internet *(Garcia-Luna-Aceves see especially paragraph 5)*.

Consider claim 9. Garcia-Luna-Aceves teaches a wireless device, comprising:

means for transmitting packets to a network via a wireless link *(Garcia-Luna-Aceves see especially figure 1, paragraphs 5, 32, 38)*;

means for temporarily storing packets that await transmission on the wireless link *(Garcia-Luna-Aceves see paragraphs 42-44)*;

means for estimating a quality of the wireless link based on an amount of time that the packets are temporarily stored *(Garcia-Luna-Aceves see paragraphs 49-53)*;

Garcia-Luna-Aceves lacks a teaching of means for providing information regarding the quality of the wireless link to a user of the wireless device.

Dybdal teaches providing a wireless device with various types of indication to inform the user of the quality of the connection *(Dybdal see especially paragraph 36)*. It would have been obvious to one of ordinary skill in the art to modify the quality determination arrangement of Garcia-Luna-Aceves to add an indicator in order to keep the user informed of potential problems in the communication link.

Consider claim 10. Garcia-Luna-Aceves teaches a method for providing information regarding a wireless connection to a user of a wireless device, the method comprising:

queuing packets that await transmission via the wireless connection *(Garcia-Luna-Aceves see paragraphs 42-44)*;

estimating a quality of the wireless connection based on an amount of time that the packets are queued *(Garcia-Luna-Aceves see paragraphs 49-53)*; and

Garcia-Luna-Aceves lacks a teaching of providing information regarding the quality of the wireless connection to the user of the wireless device.

Dybdal teaches providing a wireless device with various types of indication to inform the user of the quality of the connection *(Dybdal see especially paragraph 36)*. It would have been obvious to one of ordinary skill in the art to modify the quality determination arrangement of Garcia-Luna-Aceves to add an indicator in order to keep the user informed of potential problems in the communication link.

As to claim 11 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 10, wherein the estimating a quality of the wireless connection includes:

reading a first time at which a packet is queued *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*,

reading a second time at which the packet is de-queued *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*, and

determining an amount of time that the packet is queued based on a difference between the first and second times *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 12 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 10, wherein the estimating a quality of the wireless connection includes:

generating a statistical measure of an amount of time that the packets are queued *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*, and

using the statistical measure to estimate the quality of the wireless connection *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 13 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 12, wherein the statistical measure is generated for packets that are queued over a predetermined period of time *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 14 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 10, wherein the providing information regarding the quality of the wireless connection includes: presenting a visual indication of the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 15 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 10, wherein the providing information regarding the quality of the wireless connection includes: presenting an audible signal relating to the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 16 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 10, wherein the providing information regarding the quality of the wireless connection includes: presenting a physical indication relating to the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

Consider claim 17. Garcia-Luna-Aceves teaches a system for providing information relating to a current state of a wireless connection used by a wireless device, comprising:

measurement logic configured to:

read a first time at which a packet that awaits transmission via the wireless connection is stored in a queue *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*,,

read a second time at which the packet is de-queued from the queue *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*,, and

determine an amount of time that the packet remained in the queue based on a difference between the first and second times;

a quality estimator configured to: generate a statistical measure of the amount of time that a plurality of packets remained in the queue *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*,, and

estimate the current state of the wireless connection based on the statistical measure *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53).*

Garcia-Luna-Aceves lacks a teaching of an indicator configured to present information regarding the current state of the wireless connection to a user of the wireless device.

Dybdal teaches providing a wireless device with various types of indication to inform the user of the quality of the connection *(Dybdal see especially paragraph 36)*. It would have been obvious to one of ordinary skill in the art to modify the quality determination arrangement of Garcia-Luna-Aceves to add an indicator in order to keep the user informed of potential problems in the communication link.

As to claim 18 Garcia-Luna-Aceves in view of Dybdal teaches the system of claim 17, wherein the statistical measure is generated for packets stored in the queue over a predetermined period of time *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 19 Garcia-Luna-Aceves in view of Dybdal teaches the system of claim 17, wherein the indicator includes a visual mechanism that provides a visual indication of the current state of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 20 Garcia-Luna-Aceves in view of Dybdal teaches the system of claim 17, wherein the indicator includes an audible mechanism that provides an audible signal relating to the current state of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 21 Garcia-Luna-Aceves in view of Dybdal teaches the system of claim 17, wherein the indicator includes a physical mechanism that provides a physical indication relating to the current state of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

Consider claim 22.Garcia-Luna-Aceves teaches a wireless device, comprising:

a transceiver configured to transmit data to a network via a wireless connection *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*;

logic configured to estimate a quality of the wireless connection based on an amount of time that it takes the transceiver to successfully transmit the data *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*; and

Garcia-Luna-Aceves lacks a teaching of an indicator configured to provide information regarding the quality of the wireless connection to a user of the wireless device.

Dybdal teaches providing a wireless device with various types of indication to inform the user of the quality of the connection *(Dybdal see especially paragraph 36)*. It would have been obvious to one of ordinary skill in the art to modify the quality determination arrangement of Garcia-Luna-Aceves to add an indicator in order to keep the user informed of potential problems in the communication link.

As to claim 23 Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 22, wherein the indicator logic includes: measurement logic configured to measure a time interval from a time when the transceiver begins to transmit the data until a time when the transceiver receives confirmation of a successful transmission of the data *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 24 Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 22, wherein the indicator logic includes: a quality estimator configured to: generate a statistical measure of an amount of time that it takes the transceiver to successfully transmit data, and use the statistical measure to estimate the quality of the wireless connection *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 25 Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 24, wherein the statistical measure is generated for data transmitted over a predetermined period of time *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 26 Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 22, wherein the indicator includes a visual mechanism that provides a

visual indication of the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 27 Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 22, wherein the indicator includes an audible mechanism that provides an audible signal relating to the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 28 Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 22, wherein the indicator includes a physical mechanism that provides a physical indication relating to the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 29 Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 22, wherein the network is the Internet *(Garcia-Luna-Aceves see especially paragraph 5)*.

Consider claim 30. Garcia-Luna-Aceves teaches a wireless device, comprising:

means for transmitting packets to a network via a wireless link *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*;

means for estimating a quality of the wireless link based on an amount of time that it takes to successfully transmit the packets *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

Garcia-Luna-Aceves lacks a teaching of a means for providing information regarding the quality of the wireless link to a user of the wireless device.

Dybdal teaches providing a wireless device with various types of indication to inform the user of the quality of the connection *(Dybdal see especially paragraph 36)*. It would have been obvious to one of ordinary skill in the art to modify the quality determination arrangement of Garcia-Luna-Aceves to add an indicator in order to keep the user informed of potential problems in the communication link.

Consider claim 31. Garcia-Luna-Aceves teaches a method for providing information regarding a wireless connection to a user of a wireless device, the method comprising:

transmitting packets via the wireless connection*(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*;

estimating a quality of the wireless connection based on an amount of time that it takes to successfully transmit the packets *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53).*

Garcia-Luna-Aceves lacks a teaching of providing information regarding the quality of the wireless link to a user of the wireless device.

Dybdal teaches providing a wireless device with various types of indication to inform the user of the quality of the connection *(Dybdal see especially paragraph 36)*. It would have been obvious to one of ordinary skill in the art to modify the quality determination arrangement of Garcia-Luna-Aceves to add an indicator in order to keep the user informed of potential problems in the communication link.

As to claim 32 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 31, wherein the estimating a quality of the wireless connection includes:

measuring a time interval from a time when transmission of the packets begins until a time when confirmation of a successful transmission of the packets is received *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 33 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 31, wherein the estimating a quality of the wireless connection includes: generating a statistical measure of an amount of time that it takes to successfully transmit packets, and using the statistical measure to estimate the quality of the wireless connection *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 34 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 33, wherein the statistical measure is generated for packets that are transmitted over a predetermined period of time *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 35 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 31, wherein the providing information regarding the quality of the wireless connection includes: presenting a visual indication of the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 36 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 31, wherein the providing information regarding the quality of the wireless connection includes-. presenting an audible signal relating to the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

As to claim 37 Garcia-Luna-Aceves in view of Dybdal teaches the method of claim 31, wherein the providing information regarding the quality of the wireless connection includes: presenting a physical indication relating to the quality of the wireless connection to the user *(Dybdal see especially paragraph 36)*.

Consider claim 38. Garcia-Luna-Aceves teaches a system for providing information relating to a current state of a wireless connection used by a wireless device, comprising:

measurement logic configured to measure a time interval from a time when transmission of packets begins until a time when confirmation of successful transmission of the packets is received *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*;

a quality estimator configured to: generate a statistical measure of an amount of time that it takes to successfully transmit the packets *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*, and

estimate the current state of the wireless connection based on the statistical measure *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

Garcia-Luna-Aceves lacks a teaching of an indicator configured to present information regarding the current state of the wireless connection to a user of the wireless device.

Dybdal teaches providing a wireless device with various types of indication to inform the user of the quality of the connection *(Dybdal see especially paragraph 36)*. It

would have been obvious to one of ordinary skill in the art to modify the quality determination arrangement of Garcia-Luna-Aceves to add an indicator in order to keep the user informed of potential problems in the communication link.

As to claim 39 Garcia-Luna-Aceves in view of Dybdal teaches the system of claim 38, wherein the statistical measure is generated for packets transmitted over a predetermined period of time *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 40 Garcia-Luna-Aceves in view of Dybdal teaches the system of claim 38, wherein the indicator includes a visual mechanism that provides a visual indication of the current state of the wireless connection to the user *(Dybdal see especially paragraph 36*).

As to claim 41 Garcia-Luna-Aceves in view of Dybdal teaches the system of claim 38, wherein the indicator includes an audible mechanism that provides an audible signal relating to the current state of the wireless connection to the user *(Dybdal see especially paragraph 36*).

As to claim 42 Garcia-Luna-Aceves in view of Dybdal teaches the system of claim 38. wherein the indicator includes a physical mechanism that provides a physical indication relating to the current state of the wireless connection to the user *(Dybdal see especially paragraph 36*).

Consider claim 43.Garcia-Luna-Aceves teaches a wireless device, comprising:

a transceiver configured to transmit data to a network via a wireless connection *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*;

an output queue configured to store data that awaits transmission by the transceiver *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*;

indicator logic configured to estimate a quality of the wireless connection based on at least one of queuing behavior of the data and transceiver behavior relating to the data *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

Garcia-Luna-Aceves lacks a teaching of an indicator configured to provide information regarding the quality of the wireless connection to a user of the wireless device.

Dybdal teaches providing a wireless device with various types of indication to inform the user of the quality of the connection *(Dybdal see especially paragraph 36)*. It would have been obvious to one of ordinary skill in the art to modify the quality determination arrangement of Garcia-Luna-Aceves to add an indicator in order to keep the user informed of potential problems in the communication link.

As to claim 44 Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 43, wherein the queuing behavior relates to an amount of time that the data remains in the output queue before being de-queued by the transceiver *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

As to claim 45 Garcia-Luna-Aceves in view of Dybdal teaches the wireless device of claim 43, wherein the transceiver behavior relates to an amount of time that it takes for the transceiver to successfully transmit the data *(Garcia-Luna-Aceves see figure 5, paragraphs 49-53)*.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Vogel et al (US 2005/0054300) has been cited to show another arrangement using queue time to determine quality of a wireless network.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Philip J Sobutka whose telephone number is 571-272-7887. The examiner can normally be reached Monday through Friday from 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew D. Anderson can be reached on 571-272-4711.

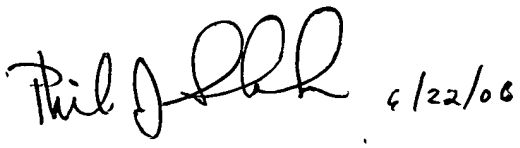
6. The central fax phone number for the Office is 571-273-8300.

Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number.

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



PHILIP J. SOBUTKA
PATENT EXAMINER

Philip J Sobutka

(571) 272-7887